

THE INFLUENCE OF SOCIO-ENVIRONMENTAL DESIGN FACTORS (SEDeF)  
OF CRIME PREVENTION ON RESIDENTIAL PROPERTY VALUES IN  
NIGERIA

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## DEDICATION

This thesis is dedicated to God Almighty for granting me the grace and my beloved family for their prayers, patience, sacrifices and most of all, their understanding throughout this academic journey.



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## ABSTRACT

The need to curb the soaring trend of residential neighbourhood crime considering its negative impact on the neighbourhood in general and property value in particular is seen not to be given the expected attention both in the academia and government setting. The consequences of residential neighbourhood crime are found to be devastating. Hence, the purpose of this study is to propose Socio-Environmental Design Factors (SEDeF) model for residential neighbourhood crime toward improving property value in Nigeria. Purposive and systematic sampling techniques were adopted while logistic regression and Structural Equation Modeling (SEM) were used to analyse the data as well as to achieve the set objectives. The results of findings showed that social risk factors (poverty, unemployment, juvenile delinquencies, illiteracy and homelessness) and the environmental design factors (natural access control, surveillance, efficient maintenance, territorial functioning and target hardening) are capable of influencing residential neighbourhood crime in Nigeria. The results of the analysis find the set hypotheses to be significant. This is shown through the regression weights and p-values of the influence of the social risk factors and environmental design factors on residential neighbourhood crime to be 0.69 (0.000) and 0.14 (0.000) respectively. Also, the impact of residential neighbourhood crime on property value gives regression weight and p-value at 0.47 and 0.000 respectively. The model fitness is further guaranteed by the  $R^2$  which stands at 52%. The interpretation of these results is that application of social development programmes to tackle the social risk factors as well as purposeful manipulation of the residential neighbourhood through design could go a long way to stem down neighbourhood crime thereby boosting property values. This research serves as awakening call to the Nigerian government, policy makers and researchers to tackle property crime in order to ensure housing sustainability and property value appreciation among others.

## ABSTRAK

Keperluan untuk membendung trend kejatuhan kejiwaan kejiwaan kediaman memandangkan kesan negatifnya terhadap kejiwaan secara amnya dan nilai harta khususnya dilihat tidak diberi perhatian yang dijangkakan dalam akademik dan pentadbiran kerajaan. Akibat kejahatan kejiwaan kediaman didapati buruk. Oleh itu, tujuan kajian ini adalah untuk mencadangkan model reka bentuk sosio-alam sekitar (SEDeF) bagi jenayah kejiwaan kediaman ke arah meningkatkan nilai hartanah di Nigeria. Teknik pensampelan dan sistematik digunakan manakala regresi logistik dan pemodelan persamaan struktur (SEM) digunakan untuk menganalisis data serta mencapai matlamat yang ditetapkan. Hasil penemuan menunjukkan bahawa faktor-faktor risiko sosial (kemiskinan, pengangguran, delinquencies remaja, buta huruf dan tempat tinggal) dan faktor reka bentuk alam sekitar (kawalan akses semula jadi, pengawasan, penyelenggaraan yang cekap, fungsi wilayah dan pengerasan sasaran) mampu mempengaruhi jenayah kejiwaan kediaman di Nigeria. Keputusan analisis mendapati hipotesis yang ditetapkan menjadi signifikan. Ini ditunjukkan melalui berat regresi dan p-nilai pengaruh faktor risiko sosial dan faktor reka bentuk alam sekitar terhadap jenayah kejiwaan kediaman masing-masing 0.69 (0.000) dan 0.14 (0.000). Selain itu, impak kejiwaan kejiwaan kediaman pada nilai harta memberikan berat regresi dan nilai p pada 0.47 dan 0.000 masing-masing. Gaya kecergasan adalah lebih terjamin oleh  $R^2$  yang berada pada 52%. Tafsiran hasil ini adalah penggunaan aplikasi pembangunan sosial untuk mengatasi faktor-faktor risiko sosial serta manipulasi yang sengaja dari kejiwaan kediaman melalui reka bentuk boleh pergi jauh untuk membendung jenayah kejiwaan dengan itu meningkatkan nilai harta benda. Penyelidikan ini berfungsi sebagai kebangkitan panggilan kepada kerajaan Nigeria, pembuat dasar dan penyelidik untuk menangani jenayah harta benda untuk memastikan kemampunan perumahan dan penghargaan nilai harta antara lain.

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## LIST OF ABBREVIATIONS

<i>AMOS:</i>	Analysis of a moment structure
<i>BCOCM:</i>	Blocking crime opportunities reduces crime
<i>CBECM:</i>	Cleaning of building environment
<i>CCTV:</i>	Use of CCTV to scare offenders
<i>CINC:</i>	Community integration and neighbourhood crime
<i>COINT:</i>	Community integration
<i>CONEL:</i>	Controlled neighbourhood layout
<i>CPSD</i>	Crime prevention through social development
<i>CPTED</i>	Crime prevention through environmental design
<i>EDF:</i>	Environmental design factors
<i>EDUCM:</i>	Education and crime
<i>FDCM:</i>	Family integration and crime
<i>FEGCOM:</i>	Fencing and gated communities
<i>FWGHV:</i>	Fence, wall and gates influence house value
<i>GEDNC:</i>	Good environmental design and neighbourhood crime
<i>HDSRA:</i>	High demand for secured residential areas
<i>HLPSV:</i>	Houses located close to police station attracts value
<i>HMCM:</i>	Homelessness and crime
<i>HPSRA:</i>	High price for secured residential areas
<i>IENCM:</i>	Intensive effort in neighbourhood crime
<i>INSUR:</i>	Increased surveillance and lighting
<i>NSICA:</i>	Neighbourhood security and choice of accommodation
<i>PCIPV:</i>	Property crime negatively impacts property values

<i>POLPA:</i>	Police patrol and local community action in crime control
<i>POVCM:</i>	Poverty and crime
<i>PSFOC:</i>	Presence of physical security allays fear of crime
<i>RMSEA:</i>	Root mean square error of approximation
<i>RNC:</i>	Residential neighbourhood crime
<i>RNCRM:</i>	Neighbourhood crime influences residential mobility
<i>RPLSA:</i>	Rebates are usually paid for less secured areas
<i>RPV:</i>	Residential property values
<i>SDPCM:</i>	Social development programme and crime
<i>SEM:</i>	Structural equation modelling
<i>SESRC:</i>	Socio-Economic status of residents influences crime
<i>SONCM:</i>	Quick response to social needs and crime
<i>SPSS:</i>	Statistical package for social sciences
<i>SRF:</i>	Social risk factors
<i>TEGHD:</i>	Obstructions in target areas
<i>UNEMC:</i>	Unemployment and crime
<i>UPOWC:</i>	Undeveloped plots with overgrown weeds causes crime
<i>UNCLV:</i>	Unsecured neighbourhood commands low rent
<i>WPGCM:</i>	Wrong peer group and crime

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

This chapter presents the background, rationale for the research as well as the research's statement of the problem. The aim and objectives are outlined in accordance with the research questions and research hypotheses postulated to provide a clear direction for the study. In addition, the research's scope, significance and methodology are briefly discussed. Finally, thesis structure, background information about Nigeria, the chapter summary and link for the next chapter conclude the chapter.

#### **1.2 Research background**

Housing is generally ranked next to food in the hierarchy of human needs. This explains why the issue of housing is usually taken seriously by individuals and government alike. The social theory believes everyone needs to be properly housed as this has a lot to do with the efficiency of labour which later transforms to the prosperity of a country's economy or otherwise (Agunbiade, 2012). Apparently, housing fulfills three functions needed by human, namely; physical, psychological and social functions. Physical needs by providing security and shelter. It satisfies psychological requirements by providing a sense of personal space and seclusion. It achieves social needs by providing a gathering area and communal space for the human family; the basic unit of society. In many societies, it also accomplishes economic needs by working as a center for commercial production which is shown by the interaction of housing market which calls for a collaboration between house

seller/owner and the house buyer/renter with the assistance of the estate agent who acts as a facilitator. Little wonder, considering the aforementioned relevance of housing to mankind, Thiele (2002) considered human right to housing as a tool for promoting and preserving individual and community health. Housing, however, goes beyond the physical building but also transcend to all the environmental characteristics that will make the building habitable and sustainable. Prominent among these is the physical security of lives and wealth which is seen as a challenging factor to residential neighbourhood sustainability (Hirschfield *et al.*, 2014; Mohit & Elsayahli, 2010; Rabe & Taylor, 2010)

Generally, home owners as well as occupants are usually prone to various forms of insecurity ranging from natural disaster (flood, earthquake, hurricane sandy, landslide and tsunamis, among others) and man-made anxiety which constitutes mainly property and violent crimes. Essentially, urban crime and fear of it are situated within a culture of violence (Louw, Robertshaw, & Mtani, 2001). Internationally, urban crime rates are soaring, particularly in cities of the developed and developing nations (Gibbon, 2004; Agbola, 1997; Cohen, 1991). Fear of crime is often linked to fear for one's personal safety, especially when alone and at dark. Fear of crime may keep residents off the streets and other public areas. It may also create a barrier to participate in the public life of cities (Wekerle and Whitzman, 1995). Louw, *et. al.* (2001) recognized among others physical environmental factors subsequent from poor urban design and management of urbanization process, insufficient urban services and failure to incorporate security related issues in urban management policies as contributing factors to rising urban crime.

Studies have also indicated that crime rate in particular neighbourhood is capable of influencing the property values or prices which most times translate to a discouragement in property investment (Boggess, *et al.*, 2013; Valez, *et al.*, 2012; Pope, 2008). Researchers assume that buyers are willing to pay more for living in neighbourhoods with lower crime rates or alternatively, that the buyer expects discounts for purchasing houses in neighbourhood with higher crime rates. In addition to the buyer and seller, other actors in housing transactions may play roles in bringing about these economic impacts (Pope & Pope, 2012; Taylor, 1995). Concerns about crime perhaps spurred in part by actual crime are capable of influencing judgments of property values made by assessors, realtors and lenders.



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